



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/684,248
				Filing Date	October 10, 2003
				First Named Inventor	Wei LIU <i>et al.</i>
				Art Unit	1652
				Examiner Name	Rebecca E. Prouty
Sheet	1	of	1	Attorney Docket Number	031896-009000 (AM101074)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
RP		US-2004/0038881	02-26-2004	BANDMAN, O. <i>et al.</i>	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>2</sup> Number <sup>4</sup> Kind Co (if known)				
RP		WO 02/18557 A2	03-07-2002	BANDMAN, O. <i>et al.</i>		
RP		WO 01/66594 A2	09-13-2001	PLOWMAN, G.D. <i>et al.</i>		
RP		WO 02/24924 A2	03-28-2002	TANG, Y.T. <i>et al.</i>		
RP		WO 01/75067 A2	10-11-2001	DRMANAC, R.T. <i>et al.</i>	(submitted in electronic format)	
RP		WO 02/081731 A2	10-17-2002	TANG, Y.T. <i>et al.</i>		

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RP		ARAVIND, L. and KOONIN, E.V., "Phosphoesterase domains associated with DNA polymerases of diverse origins," <i>Nucleic Acids Res.</i> , 26(16):3746-52 (1998)	
RP		MYERS, R.M. <i>et al.</i> , "Detection of single base substitutions by ribonuclease cleavage at mismatches in RNA:DNA duplexes," <i>Science</i> , Vol. 230 (4731):1242-1246 (1985)	
		Database GenEmbl, on STN, AN AF021935, LEUNG, T. <i>et al.</i> , "Myotonic Dystrophy Kinase-Related <i>Cdc42</i> -Binding Kinase Acts as a <i>Cdc42</i> Effector in Promoting Cytoskeletal Reorganization," <i>Sequence Comparison</i> , pp. 18-21.	
RP		COLLINS, F.S., "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences," <i>Proc. Natl. Acad. Sci. USA</i> , 99(26):16899-16903 (2002)	
		Database GenCore on STN, AN AAD34299, BANDMAN, O. <i>et al.</i> , Database N-Geneseq 29Jan04 (WO 02/18557-A2), March 7, 2002, <i>Sequence Comparison</i> , pp. 1-4.	

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RP		ALTSCHUL ET AL.; "GAPPED BLAST AND PSI-BLAST: A NEW GENERATION OF PROTEIN DATABASE SEARCH PROGRAMS", NUCLEIC ACIDS RESEARCH, 1997, PP. 3389-3402, VOL. 25, NO. 17, OXFORD UNIVERSITY PRESS	
RP		BERGER P. ET AL.; "LOSS OF PHOSPHATASE ACTIVITY IN MYOTUBULARIN-RELATED PROTEIN 2 IS ASSOCIATED WITH CHARCOT-MARIE TOOTH DISEASE TYPE 4B1", HUMAN MOLECULAR GENETICS, 2002, PP. 1569-1579, VOL. 11, NO. 13, OXFORD UNIVERSITY PRESS	
RP		BOE R. ET AL.; "THE PROTEIN PHOSPHATASE INHIBITOR OKADAIC ACID INDUCES MORPHOLOGICAL CHANGES TYPICAL OF APOPTOSIS IN MAMMALIAN CELLS", EXPERIMENTAL CELL RESEARCH 195, 1991, PP. 237-246, ACADEMIC PRESS, INC.	
RP		BOTTINI N. ET AL.; "LOW-MOLECULAR-WEIGHT PROTEIN TYROSINE PHOSPHATASE AND HUMAN DISEASE: IN SEARCH OF BIOCHEMICAL MECHANISMS", ARCHIVUM IMMUNOLOGIAE ET THERAPIAE EXPERIMENTALIS, 2002 pp. 95-104, vol. 50,	
RP		BROWN-SHIMER, ET AL.; "EFFECT OF PROTEIN TYROSINE PHOSPHATASE 1b EXPRESSION ON TRANSFORMATION BY THE HUMAN neu ONCOGENE", CANCER RESEARCH, 52, 1992, PP. 478-48	
RP		CHEN ET AL.; "THE MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE IS INVOLVED IN THE REGULATION OF NEURITE OUTGROWTH IN PC12 CELLS", THE JOURNAL OF BIOLOGICAL CHEMISTRY 1999, PP. 19901-19905, VOL. 274, NO. 28, THE AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY, INC.	
RP		DELAGRAVE ET AL.; "RECURSIVE ENSEMBLE MUTAGENESIS", PROTEIN ENGINEERING, 1993, PP. 327-331, VOL. 6 NO. 3, OXFORD UNIVERSITY PRESS	
RP		DONG ET AL.; "Cdc42 ANTAGONIZES INDUCTIVE ACTION OF cAMP ON CELL SHAPE, VIA EFFECTS OF THE MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE (MRCK) ON MYOSIN LIGHT CHAIN PHOSPHORYLATION", EUROPEAN JOURNAL OF CELL BIOLOGY APRIL 2002, PP. 231-242, VOL. 81	

Examiner Signature	Rebecca Prouty	Date Considered	6-9-06
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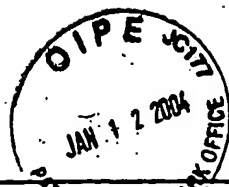
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RP		ENGELMAN ET AL.; "IDENTIFYING NONPOLAR TRANSBILAYER HELICES IN AMINO ACID SEQUENCES OF MEMBRANE PROTEINS", ANN. REV. BIOPHYS. CHEM. 1986, PP. 321-353, VOL. 15, ANNUAL REVIEWS INC.	
RP		FLOREA ET AL.; "A COMPUTER PROGRAM FOR ALIGNING A cDNA SEQUENCE WITH A GENOMIC DNA SEQUENCE", GENOME RESEARCH 1998, PP. 967-974, VOL. 8, COLD SPRING HARBOR LABORATORY PRESS	
RP		GOSSEN ET AL.; "TRANSCRIPTIONAL ACTIVATION BY TETRACYCLINES IN MAMMALIAN CELLS", SCIENCE JUNE 23, 1995, PP. 1766-1769, VOL. 268	
RP		GUATELLI ET AL.; "ISOTHERMAL, IN VITRO AMPLIFICATION OF NUCLEIC ACIDS BY A MULTIENZYME REACTION MODELED AFTER RETROVIRAL REPLICATION", PROC. NATL. ACAD. SCI. USA, MARCH 1990, PP.1874-1878, VOL. 87	
RP		HASELOFF ET AL.; "SIMPLE RNA ENZYMES WITH NEW AND HIGHLY SPECIFIC ENDORIBONUCLEASE ACTIVITIES", NATURE, AUGUST 18, 1988, PP. 585-591, VOL. 334	
RP		HYRUP ET AL.; "PEPTIDE NUCLEIC ACIDS (PNA): SYNTHESIS, PROPERTIES AND POTENTIAL APPLICATIONS", BIOORGANIC & MEDICINAL CHEMISTRY, 1996, PP. 5-23, VOL. 4, NO. 1, ELSEVIER SCIENCE LTD., GREAT BRITAIN	
RP		ISHIDA ET AL.; "TREATMENT OF MYELOID LEUKEMIC CELLS WITH THE PHOSPHATASE INHIBITOR OKADAIC ACID INDUCES CELL CYCLE ARREST AT EITHER G1/S OR G2/M DEPENDING ON DOSE", JOURNAL OF CELLULAR PHYSIOLOGY, 1992, PP. 484-492	
RP		JANSENS ET AL.; "PROTEIN PHOSPHATASE 2A: A HIGHLY REGULATED FAMILY OF SERINE/THREONINE PHOSPHATASES IMPLICATED IN CELL GROWTH AND SIGNALING," BIOCHEM. J., 353, 2001, PP 417-43	
RP		KEDRA ET AL.; "THE GERMINAL CENTER KINASE GENE AND A NOVEL CDC25-LIKE GENE ARE LOCATED IN THE VICINITY OF THE PYGM GENE ON 11q13", HUM. GENET., 1997, PP. 611-619, VOL. 100	

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RP		KEEN ET AL.; <b>RAPID DETECTION OF SINGLE BASE MISMATCHES AS HETERODUPLEXES ON HYDROLINK GELS</b> ", TRENDS IN GENETICS, 1997, P. 5, VOL. 7	
RP		KWOH ET AL.; <b>"TRANSCRIPTION-BASED AMPLIFICATION SYSTEM AND DETECTION OF AMPLIFIED HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 WITH A BEAD-BASED SANDWICH HYBRIDIZATION FORMAT"</b> , PROC. NATL. ACAD. SCI. USA, FEBRUARY 1989, PP. 1173-1177, VOL. 86	
RP		LAM ET AL.; <b>"CHARACTERIZATION OF A MONOCLONAL ANTIBODY PANEL SHOWS THAT THE MYOTONIC DYSTROPHY PROTEIN KINASE, DMPK, IS EXPRESSED ALMOST EXCLUSIVELY IN MUSCLE AND HEART"</b> , HUMAN MOLECULAR GENETICS, 2000, PP. 2167-2173, VOL. 9, NO. 4, OXFORD UNIVERSITY PRESS	
RP		LEE ET AL.; <b>"EXPRESSION OF SMALL INTERFERING RNAs TARGETED AGAINST HIV-1 rev TRANSCRIPTS IN HUMAN CELLS"</b> , NATURE BIOTECHNOLOGY, MAY 2002, PP. 500505, VOL. 19	
RP		LEUNG ET AL.; <b>"MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE ACTS AS A Cdc42 EFFECTOR IN PROMOTING CYTOSKELETAL REORGANIZATION"</b> , MOLECULAR AND CELLULAR BIOLOGY, JANUARY 1998, PP. 130-140, VOL. 18, NO. 1, AMERICAN SOCIETY FOR MICROBIOLOGY	
RP		LIZARDI ET AL.; <b>"EXPONENTIAL AMPLIFICATION OF RECOMBINANT-RNA HYBRIDIZATION PROBES"</b> , BIOTECHNOLOGY, OCTOBER 1988, PP. 1197-1202, VOL. 6	
RP		MARATEA ET AL.; <b>"DELETION AND FUSION ANALYSIS OF THE PHAGE Øx174 LYSIS GENE E"</b> , GENE, 1985, PP. 39-46, VOL. 40, ELSEVIER SCIENCE PUBLISHERS	

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RP		MEYERS ET AL.; "OPTIMAL ALIGNMENTS IN LINEAR SPACE", CABIOS, 1988, PP. 11-17, VOL. 4, NO. 1, PRESS LIMITED, OXFORD ENGLAND	
RP		MURPHY ET AL.; "GENETIC CONSTRUCTION, EXPRESSION, AND MELANOMA-SELECTIVE CYTOTOXICITY OF A DIPHTHERIA TOXIN-RELATED $\alpha$ -MELANOMA-STIMULATING HORMONE FUSION PROTEIN", PROC. NATL. ACADEMY OF SCI. USA, NOVEMBER 1986, PP. 8258-8262, VOL. 83	
RP		NEEDLEMAN ET AL.; "A GENERAL METHOD APPLICABLE TO THE SEARCH FOR SIMILARITIES IN THE AMINO ACID SEQUENCE OF TWO PROTEINS", J. MOL. BIO., 1970, PP. 443-453, VOL. 48	
RP		NO ET AL.; "ECDYSONE-INDUCIBLE GENE EXPRESSION IN MAMMALIAN CELLS AND TRANSGENIC MICE", PROC. NATL. ACADEMY OF SCI. USA, APRIL 1996, PP. 3346-3351, VOL. 93	
RP		NOMURA ET AL.; "ENHANCEMENT BY CYCLOSPORIN A OF TAXOL-INDUCED APOPTOSIS OF HUMAN URINARY BLADDER CANCER CELLS", UROL RES, 2002, PP. 102-111, VOL. 30	
RP		O'GORMAN ET AL.; "RECOMBINASE-MEDIATED GENE ACTIVATION AND SITE-SPECIFIC INTEGRATION IN MAMMALIAN CELLS", SCIENCE, MARCH 1991, PP. 1351-1355	
RP		ROSENBAUM ET AL.; "TEMPERATURE-GRADIENT GEL ELECTROPHORESIS", BIOPHYSICAL CHEMISTRY, 1987, PP. 235-246, VOL. 26	
RP		SAIKI ET AL.; "GENETIC ANALYSIS OF AMPLIFIED DNA WITH IMMOBILIZED SEQUENCE-SPECIFIC OLIGONUCLEOTIDE PROBES", PROC. NATL. ACADEMY OF SCI. USA, AUGUST 1989, PP. 6230-6234, VOL. 86	

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RP		STRAUB ET AL.; "GENOME-WIDE SCANS OF THREE INDEPENDENT SETS OF 90 IRISH MULTIPLEX SCHIZOPHRENIA FAMILIES AND FOLLOW-UP OF SELECTED REGIONS IN ALL FAMILIES PROVIDES EVIDENCE FOR MULTIPLE SUSCEPTIBILITY GENES", MOL. PSYCHIATRY, 2002, PP. 542-559, VOL. 7, NO. 6 <i>only Pub Med Abst 12140777 citing</i>	
RP		SUI ET AL.; "A DNA VECTOR-BASED RNAi TECHNOLOGY TO SUPPRESS GENE EXPRESSION IN MAMMALIAN CELLS", PROC. NATL. ACAD. SCI., APRIL 16, 2002, PP. 5515-5520, VOL. 99, NO. 8	
RP		TAN ET AL.; "PHOSPHORYLATION OF A NOVEL MYOSIN BINDING SUBUNIT OF PROTEIN PHOSPHATASE 1 REVEALS A CONSERVED MECHANISM IN THE REGULATION OF ACTIN CYTOSKELETON", THE JOURNAL OF BIOLOGICAL CHEMISTRY, 2001, PP. 21209-21216, VOL. 276, NO. 24	
RP		TAN ET AL.; "INTERMOLECULAR AND INTRAMOLECULAR INTERACTIONS REGULATE CATALYTIC ACTIVITY OF MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE $\alpha$ ", MOLECULAR AND CELLULAR BIOLOGY, APRIL 2001, PP. 2767-2778, VOL. 21, NO. 8	
RP		WANG ET AL.; "LIGAND-INDUCIBLE AND LIVER-SPECIFIC TARGET GENE EXPRESSION IN TRANSGENIC MICE", NATURE BIOTECHNOLOGY, MARCH 1997, PP. 239-243, VOL. 15	
		WARY ET AL.; "A HOMOZYGOUS DELETION WITHIN THE CARBONIC ANHYDRASE-LIKE DOMAIN OF THE Ptpg GENE IN MURINE L-CELLS", CANCER RESEARCH, APRIL 1, 1993, PP. 478-482, VOL. 53 <i>not submitted</i>	
RP		WILMUT ET AL.; "VIALE OFFSPRING DERIVED FROM FETAL AND ADULT MAMMALIAN CELLS", LETTERS TO NATURE, FEBRUARY 1997, PP. 810-813, VOL. 385	
RP		YE ET AL.; "REGULATED DELIVERY OF THERAPEUTIC PROTEINS AFTER IN VIVO SOMATIC CELL GENE TRANSFER," SCIENCE, JANUARY 1999, PP. 88-91, VOL. 283	
RP		ZHAO ET AL.; "REVERSIBLE MODIFICATION OF TISSUE-TYPE PLASMINOGEN ACTIVATOR BY METHYLPHOSPHONATE ESTERS," BIOORGANIC & MEDICINAL CHEMISTRY, 1996, PP. 523-529, VOL. 4	
RP		Zhang et al.; "PROTEIN TYROSINE PHOSPHATASES: STRUCTURE AND FUNCTION, SUBSTRATE SPECIFICITY, AND INHIBITOR DEVELOPMENT," ANNU REV PHARMACOL TOXICOL, 2002, PP. 209-34, VOL. 42 <i>Pub Med Abst 1807171 citing</i>	

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